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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Intl.

Appl. No.: PCT/JP2003/016682

Applicant: Yasuhiro KAJIHARA et al.

Intl. Appl.

Filed: December 25, 2003

TC/A.U. : Not Assigned

Examiner : Not Assigned

Dkt. No. : TAM-054

Cust. No. : 20374

<u>UNDER 37 C.F.R. §1.97(b)</u>

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

June 24, 2005

Sir:

The attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached Form PTO-1449. One copy of each document is attached.

No fee or statement is required in connection with this Information Disclosure Statement, since it is being submitted prior to the last of (1) issuance of a first official action on the merits and (2) expiration of the three month period following

U.S. National Stage of PCT/JP2003/016682 INFORMATION DISCLOSURE STATEMENT

PATENT

filing of the above-captioned application.

Documents UA and DA to DS are in the English language. Therefore, no concise explanation of the relevance of the documents is believed to be required under 37 C.F.R. §1.98.

Document FA is not in the English language. However, the concise explanation of the relevance of the document required under 37 C.F.R. §1.98 is believed to be satisfied by the submission of an English language abstract thereof.

Please note that documents FA and DA to DS have been cited in the International Search Report of the present application. A copy of the search report is being filed concurrently herewith. The relevance of each document is also discussed in the search report.

Please also note that document UA is the corresponding U.S. Application Publication to WO 03/008431 Al which is also cited in the international search report.

The Commissioner is authorized to charge our Deposit Account

U.S. National Stage of PCT/JP2003/016682 INFORMATION DISCLOSURE STATEMENT

PATENT

No. 111833 for any fee which is deemed by the Patent and Trademark Office to be required to effect consideration of this statement.

Respectfully submitted,

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Attachments: PTO-1449

Twenty-one Documents

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INFORMATION DISCLOSURE STATEMENT					Atty. Docket No. TAM-054		10	754D61
		PTO-1449		Applicant: Yasuhiro KAJIHARA et al.				
					Filing Date: Group: Not assigned			
			U.S. PA	ATENT DO	CUMENTS			
Examiner's Initial		Document No. Date		1	Name		Sub Class	Filing Date If appropriate
	UA	2004/0181054 A1	09/16/04			536	123.13	
			FOREIGN	PATENT I	OCUMEN	TS	<u> </u>	
Examiner's Initial		Document No.		Date		Country	Translation Yes/No/Partial	
	FA	7-224082 A	7-224082 A		08/22/95 Л		Abstract	
			OTI	IER DOCU	MENTS			
Examiner's Initial					:			
	DA	Shao, Ming-Chuan, "The Use of Streptavidin-Biotinylglycans as a Tool for Characterization of Oligosaccharide-Binding Specificity of Lectin", <i>Analytical Biochemistry</i> , Vol. 205, pp. 77-82, 1992.						
	DB	Fournet, Bernarad et al., "Primary structure of an N-glycosidic carbohydrate unit derived from Sophora japonica lectin", Eur. J. Biochem., Vol. 166, pp. 321-324, 1987.						
	DC	Shao, Ming-Chuan et al., "Protein Matrix Effects on Glycan Processing by Mannosidase II and Sialyl Transferase from Rat Liver", <i>Biochemistry</i> , Vol. 28, pp. 4077-4083, 1989.						
	DD	Shao, Ming-Chuan et al., "The Regulation of Glycan Processing in Glycoporteins", <i>The Journal of Biological Chemistry</i> , Vol. 262, No. 7, pp. 2973-2979, 1987.						
	DE	Lin, Chun-Hung et al., "Enzymatic Synthesis of a Sialyl Lewis X Dimer from Egg Yolk as an Inhibitor of E-Selectin", <i>Bioorganic & Medicinal Chemistry</i> , Vol. 3, No. 12, pp. 1625-1630, 1995.						
	DF	Leteux, Christine et al., "Biotinyl-L-3-(2-naphthyl)-alanine hydrazide derivatives of N-glycans: versatile solid-phase probes for carbohydrate-recognition studies", Glycobiology, Vol. 8, No. 3, pp. 227-236, 1998.						
	DG	Poola, Indravathamma et al., "Interaction of asparagine-linked oligosaccharides with an immobilized rice (<i>Oryza sativa</i>) lectin column", <i>Biochem. J.</i> , Vol. 250, pp. 117-124, 1988.						
	DH	Yamamoto, Kazuo et al., "Structural Requirements for the Binding of Oligosaccharides and Glycopeptides to Immobilized Wheat Germ Agglutinin", <i>Biochemistry</i> , Vol. 20, pp. 5894-5899, 1981.						
	DI	Unverzagt, Carlo, "Chemoenzymatic synthesis of a sialylated diantennary N-glycan linked to asparagine," Carbohydrate Research, Vol. 305, pp. 423-431, 1998.						
	DJ	Haneda, Katsuji et al., "Transglycosylation of intact sialo complex-type oligosaccharides to the N-acetylglucosamine moieties of glycopeptides by Mucor hiemalis endo-β-N-acetylglucosaminidase," Carbohydrate Research, Vol. 292, pp. 61-70, 1996.						

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INFORMATION DISCLOSURE STATEMENT	Atty. Docket No. TAM-054	Not assigned	
PTO-1449	Applicant: Yasuhiro KAJIHARA et al.		
	Filing Date: June 24, 2005	Group: Not assigned	

OTHER DOCUMENTS

	DK	Unverzagt, Carlo, "Building Blocks for Glycoproteins: Synthesis of the Ribonuclease B		
		Fragment 21-25 containing an Undecasaccharide N-Glycan," <i>Tetrahedron Letters</i> , Vol. 38, No. 32, pp. 5627-5630, 1997.		
	DL	Seko, Akira et al. "Occurrence of a sialylglycopeptide and free sialylglycans in hen's egg yolk", <i>Biochimica et Biophysica Acta</i> , Vol. 1335, pp. 23-32, 1997.		
	DM	McGuire, John M. et al., "The resolution of the neutral N-linked oligosaccharides of IgG b high pH anion-exchange chromatography", Carbohydrate Research, Vol. 292, pp. 1-9, 199		
	DN	Meinjohanns, Ernst et al., "Novel sequential solid-phase synthesis of N-linked glycopeptides from natural sources", J. Chem. Soc. Perkin Trans. 1, pp. 549-560, 1998.		
	DO	Pierce-Cretel, Annick et al., "Primary structure of <i>N</i> -glycosidically linked asialoglycans of secretory immunoglobulins A from human milk", <i>Eur. J. Biochem.</i> , Vol. 139, pp. 337-349, 1984.		
	DP	Chiesa, M. Vittoria et al., "Syntehsis of an Asparagine-Linked Heptasaccharide - Basic Structure of N-Glycans", Eur. J. Org. Chem., pp. 3541-3554, 2000.		
·	DQ	Nomoto, Hiroshi et al., "Preparation and Characterisation of Fragment Glycoasparagines fro Ovalbumin Glycopeptides: Reference Compounds for Structural and Biocehmical Studies of the Oligo-Mannose and Hybrid Types of Carbohydrate Chains of Glycoproteins", Carbohydrate Research, Vol. 107, pp. 91-101. 1982.		
	DR	Brockhausen, Inka et al., "Control of glycoprotein synthesis. The use of oligosaccharide substrates and HPLC to study the sequential pathway for <i>N</i> -acetylglucosaminyltransferases I, II, III, IV, V and VI in the biosynthesis of highly branched <i>N</i> -glycans by hen oviduct membranes", <i>Biochem. Cell. Biol.</i> , Vol. 66, pp. 1134-1151, 1988.		
	DS	Kornfeld, Kerry et al., "The Carbohydrate-binding Specificity of Pea and Lentil Lectins", <i>The Journal of Biological Chemistry</i> , Vol. 256, No. 13, pp. 6633-6640, 1981.		

Date Considered:

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